**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**STRUCTURE AND ROLE OF RELATIONAL DATABASES, P 97**

1. **What is a flat file database?**

A flat file database stores data in tables consisting of rows and columns.

1. **Define each of the following terms:**
   1. **Primary key**

A primary key is a field attached to each record in the data base. The value of this key should be unique for each record in the data base. Examples are number plates on cars, tax file numbrs and student numbers.

* 1. **Field**

A field contains the same type of data for a series of records. The same feild for a series of records will contain the same type of data.

* 1. **Record**

A record is a set of information about one entity (a person, place or object).

* 1. **Form**

A form although the table holds data, it is not particularly efficient input tool. A form allows an input screen to be formatted and linked to an underlying table or query.

* 1. **Query**

Record that meet specified criteria can be filtered out from a total number of records by performing a query. A query is basically a search of the data in a database.

* 1. **Report**

A report formats the query data and allows you to add summary statistics, such as totals and as well as headings, to make the information easier to read and understand.

* 1. **Macros**

A macro is a set of commands that are run automatically. Procedures run in the database can be automated by the use of macros. When run, macros will carry out a set of predetermined tasks.

**DATA TYPES AND FORMATS**

1. **DATA TYPES**

**List the following data types and characteristics of each with examples.**

* 1. **Text, (string) String data types include a series of symbols or values, such as a character string (a sequence of characters) or a binary string ( a sequence of binary values)**
* **Names**
* Addresses
* Postcodes
* Telephone numbers
* Product names
* Descriptions
  1. **Numeric**
* Totals
* Amounts
* Prices
  1. **Currency**
* Monetary values such as prices
  1. **Date/time**
* Date of the purchase
* Date of birth
* Time that something was completed
* Time of purchase
  1. **Boolean**
* Yes/no
* True/false
* Male/female
* On/off
  1. **Object**
* Image
* Video
* Document
* Media file
  1. **Memo**
* Description of product
* Description of the location
* Any long sections of text

1. **DATA FORMATS:**

**Elaborate on the following common data formats:**

1. **Text**

Each field would be formatted to hold a unique number of characters. For example a postcode field would be formatted to only hold 4 characters and a name field would be formatted to hold around 25 characters.

1. **Fixed Decimal Places**

These related to certain numeric values, such as dollars and cents or places. For example you can format the number of decimal places that the field will show.

1. **Date**

The date can be made to be displayed in many different ways. For example, 1/04/2011, 1 April 2011 and Friday, 1 April 2011.

1. **Date/Time**

The time can be put input place to add more integrity to the data and show the specific time of purchase for example, 18:32:19 or 6:32 PM

1. **Dollar, Currency**

The $ symbol is displayed and it defaults to .00 after the value.

1. **True/False, Boolean Logic**

They can be displayed as words such as, yes/no or true/false or as check or tick boxes to make data entry easier.